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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/596,281

06/08/2006

Richard Brian Perry

70335

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26748

7590

05/08/2008

SYNGENTA CROP PROTECTION, INC.
PATENT AND TRADEMARK DEPARTMENT
410 SWING ROAD
GREENSBORO, NC 27409

EXAMINER

SULLIVAN, DANIELLE D

ART UNIT

PAPER NUMBER

1616

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/596,281	Applicant(s) PERRY ET AL.	
	Examiner DANIELLE SULLIVAN	Art Unit 1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-22 are pending for examination on the merits.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 16-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 16 recites the broad recitation "cationics such as quaternary ammonium phosphate salts", and the

claim also recites "alcohol ethoxylates, amine ethoxylates, amide oxides" which is the narrower statement of the range/limitation.

The phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d). All dependent claims are therefore unclear.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to

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be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4 and 6-22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 and 6-22 of copending Application No. 10/578211. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims disclose an amine adjuvant is generic to all that are recited in the copending claims, that is, claims 1-4 and 6-22 of the copending application fall entirely within the scope of the instant claim 1-4 and 6-22.

Case law firmly establishes that a later genus claim limitation is anticipated by, and therefore not patentably distinct from, an earlier species claim. *In re Berg*, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 1053, 29 USPQ2d 2010, 2016 (Fed. Cir. 1993); *In re Gosteli*, 872 F.2d 1008, 1010, 10 USPQ2d 1614, 1616 (Fed. Cir. 1989); *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 782, 227 USPQ 773, 779 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d at 944, 214 USPQ at 767 (C.C.P.A. 1982).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-4 and 6-22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 and 6-22 of copending Application No. 10/596268. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims disclose an amine adjuvant is generic to all that are recited in the copending claims, that is, claims 1-4 and 6-22 of the copending application fall entirely within the scope of the instant claim 1-4 and 6-22.

Case law firmly establishes that a later genus claim limitation is anticipated by, and therefore not patentably distinct from, an earlier species claim. *In re Berg*, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 1053, 29 USPQ2d 2010, 2016 (Fed. Cir. 1993); *In re Gosteli*, 872 F.2d 1008, 1010, 10 USPQ2d 1614, 1616 (Fed. Cir. 1989); *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 782, 227 USPQ 773, 779 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d at 944, 214 USPQ at 767 (C.C.P.A. 1982).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6-13, 21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Ashford et al. (WO 02/076212).

Ashford et al. discloses an agrochemical composition comprising a salt of paraquat, a salt of diquat or a mixture thereof, the composition further comprising purgative wherein a pH triggered gel effect takes place at the acid pH of human gastric juice, wherein the gelling agent is an alginate and wherein the composition comprises (a) one or more cationic or nonionic surfactants and (b) one or more anionic surfactants (page 7, lines 15-20). Non-ionic surfactants include alkyl amine ethoxylates, such as SYNPROLAM 35 x 15 (page 8, lines 13 and 14). The ratio of group (a) surfactants to group (b) surfactants is preferably from 1:2 to 10:1 (page 7, lines 13 and 14). Examples 1-3 disclose formulations comprising paraquat dichloride (200 g/L), SYNPROLAM 35 x 15 (31 g/L) and magnesium sulphate (74 g/L).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ashford et al. (WO 02/076212) in view of Scher et al. (US 5,562,914).

Applicant's Invention

Applicant claims the composition as addressed in above 102(b) rejection. The amine adjuvant is preferably triethylenediamine or tetramethylethylenediamine.

Determination of the scope and the content of the prior art

(MPEP 2141.01)

Ashford et al. teaches the composition as addressed in above 102(b) rejection.

Ascertainment of the difference between the prior art and the claims

(MPEP 2141.02)

Ashford et al. do not teach the amine adjuvant is triethylenediamine or tetramethylethylenediamine. It is for this reason that Scher et al. is joined.

Scher et al. teaches that triethylenediamine is a catalyst used in coating membranes for agricultural use (column 1, lines 22-29; column 5, lines 12-21 and 37-41). The catalyst accelerate polymerization and can be used to hold herbicides such as glyphosate (column 6, lines 64 and 65).

Finding of prima facie obviousness

Rationale and Motivation (MPEP 2142-2143)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Ashford et al. and Scher et al. to further include triethylenediamine. One would have been motivated to do so since it would aid in the formation of a controlled release agrochemical composition in a shorter amount of time than without addition of the catalysts.

Claim 14-20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ashford et al. (WO 02/076212) in view of Scher et al. (US 5,562,914) in further view of Humble et al. (US 6,734,141).

Applicant's Invention

Applicant claims the composition as addressed in above 102(b) rejection. The second adjuvant is preferably selected from alkyl polyglycoside and betaines or selected from alcohol ethoxylates and amine oxides. The second adjuvant is present at a lower concentration than the amine adjuvant. The weight ratio is such that the amine adjuvant to the second adjuvant ranges from about 50:1 to 1:50, preferably 10:1 to 1:10 or 1:1 down to 1:25, preferably 1:4 to 1:15.

Determination of the scope and the content of the prior art

(MPEP 2141.01)

Ashford et al. teaches the composition as addressed in above 102(b) rejection.

Scher et al. teaches the composition as addressed in above 103(a) rejection.

Ascertainment of the difference between the prior art and the claims

(MPEP 2141.02)

Ashford et al. and Scher et al. do not teach the second adjuvant is preferably selected from alkyl polyglycoside and betaines or selected from alcohol ethoxylates and amine oxides. Ashford et al. and Scher et al. do not teach that the second adjuvant is present at a lower concentration than the amine adjuvant or that the weight ratio is such that the amine adjuvant to the second adjuvant ranges from about 50:1 to 1:50, preferably 10:1 to 1:10 or 1:1 down to 1:25, preferably 1:4 to 1:15. It is for this reason that Humble et al. is joined.

Humble et al. teaches that non-spreading silicone surfactants advantageously used with herbicides, such as diquat and paraquat (column 6, lines 25-31; column 8, lines 8-12). The use of co-surfactants and co-adjuvants (second adjuvants) is taught as common practice in formulations and adjuvant blends, where a variety of properties may be desired from the adjuvant and co-surfactants included quaternary ammonium surfactants, amine oxides, betaines, alcohol alkoxylates, alkoxylated amides and alkyl polyglycosides (column 8, lines 35-67). The adjuvant formulations can contain from 0 to about 99% by weight of co-surfactants (column 9, lines 40-45). Therefore, the amount of co-surfactants can vary across a wide range.

Finding of prima facie obviousness

Rationale and Motivation (MPEP 2142-2143)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Ashford et al., Scher et al. and Humble et al. and further include co-surfactants in a lower concentration than the amine adjuvant. One would have been motivated to do so to receive beneficial properties from the amide adjuvant such as polymerization which would allow for controlled release of the ingredients. Furthermore, it would have been obvious to incorporate the co-surfactants in weight ratios ranging from 50:1 to 1:50 since co-surfactants are known to comprise 0 to 99% of adjuvant formulations. Therefore, the manipulation of the amount of the co-surfactant is within the skill of an artisan since the prior art establishes a suitable range and teaches the concentrations may vary.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danielle Sullivan whose telephone number is (571) 270-3285. The examiner can normally be reached on 7:30 AM - 5:00 PM Mon-Thur EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on (571) 272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Danielle Sullivan
Patent Examiner
Art Unit 1616

/Sharmila Gollamudi Landau/
Primary Examiner, Art Unit 1611